



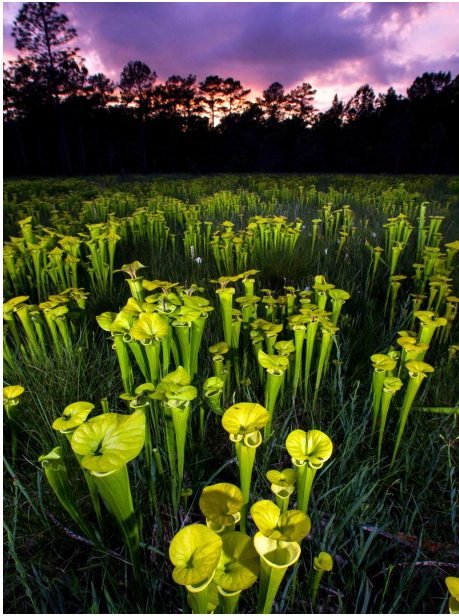
The Cape Fear River is North Carolina's largest river basin. Beginning in the piedmont, it meanders across 27 counties before eventually flowing into the Atlantic Ocean.

# The Lower Cape Fear: How Do You Benefit?



*The River is beautiful and powerful.  
It is also vitally important to people.*

*Photo by Skip Pudney*



*Photo by Christian Ziegler*



## About the River

Roughly a third of North Carolina's population shares the Cape Fear basin with an incredible array of plants and animals, setting it apart from much of the eastern United States. The area is home to the world's oldest stand of cypress trees, the carnivorous Venus flytrap and lots of animals including alligators and the bald eagle.

But many of the plants and animals that make the basin unique can be very sensitive to environmental changes. These changes often stem from growth and urbanization within the watershed as well as national and global demand for food and recreational opportunities. As we develop the land to accommodate these demands, we affect the health of the Cape Fear and all of its residents – people, animals and plants.

One of the more pressing concerns is the status of migratory fish stocks, such as American shad, Atlantic sturgeon, and striped bass. Their numbers have decreased substantially from historic levels. For instance, populations of many migratory fish species are thought to be at less than 10 percent of their historic abundance.

In an effort to rebuild these migratory fish populations and expand conservation efforts, a group of representatives from various organizations and agencies joined together to create The Cape Fear River Partnership.

## About the Conservation Initiative

With funding from the National Oceanic Atmospheric Administration (NOAA), The Nature Conservancy (TNC) and the North Carolina Division of Marine Fisheries (NCDMF) are building on the Partnership's ongoing work to restore habitat and demonstrate the importance of the lower Cape Fear River to fish and people, focusing specifically on the main stem of the river between Lock and Dams #1 and #2, just southeast of Elizabethtown, NC.

NCDMF is evaluating the economic importance of specific fish species and fisheries to NC. Quantifying the economic importance will demonstrate the value of these fish species to commercial and recreational fishermen and coastal communities.

TNC is building on this by tackling water quality issues in the lower Cape Fear. Assessing major problem areas and showing how better management in these areas will improve health and habitat for migratory fish will benefit people in multiple ways.



# What's at Risk?



## Water Quality

Urbanization, wastewater dischargers, and agriculture, among others things, all affect water quality in the Lower Cape Fear River.

Rainfall carries runoff loaded with nutrients and other pollutants to the river, which threaten human and fish health. For example, algal blooms, caused by excessive nutrient loads, reduce the amount of oxygen available for fish, leading to fish kills.

TNC is using science, data, and models to determine which areas of the river are most affected by nutrients. Knowing what areas are in the best shape will help guide future conservation efforts on the Cape Fear.



## Fish Passage

Migratory fish, like American shad and striped bass, hatch upstream, migrate to the ocean, and then swim back upriver to spawn. Their journey isn't easy to begin with, and the construction of man-made dams has increased the challenge. Dams block fish from natural spawning grounds, decrease water flow, and degrade habitat, resulting in fewer fish.

The Action Plan for Migratory Fish, created by the Cape Fear River Partnership as a way to jumpstart conservation efforts, aims to restore fish habitat and improve fish health. Significant progress has been made in making migratory routes accessible for fish by modifying dams, but there is still much work to be done.



## Habitat Degradation

Migratory fish aren't the only wildlife threatened by humans. The Cape Fear has a wealth of plants and wildlife – some of which have shown astounding resiliency in the face of habitat degradation, while others are known to be extremely sensitive to environmental changes.

Dredging, increased sediment loads, runoff, deforestation, and land development all hinder the functional value of these habitats, which in turn limits the services they provide to people such as drinking water and flood control. The communities in the basin rely on the abundance of these natural resources, so it's paramount that we work together to protect them.



## Economic Benefits

The Cape Fear is important to the local economy. People need clean drinking water and a healthy river supports local businesses that are dependent on visitors and their dollars. According to research done by NOAA in 2010, more than 33,000 people in North Carolina were employed in the tourism and recreation industry, with wages totaling almost \$500 million.

Strategies that focus on restoring migratory fish passage and improving water quality will increase economic contribution of these fisheries to NC in the long run. As a result of these actions, whole communities will reap the social, ecological, and economic benefits. Better water quality means healthier fish, and healthier fish will lead to a more robust economy.

## Who Benefits?

Better watershed management is a win-win for everyone; providing clean drinking water, great fishing, and fantastic recreational opportunities. A healthy Cape Fear River is vital to the continued economic wellbeing of the region.

Restoring fish passage by removing or modifying man-made dams and improving water quality by investing in projects that will help reduce water pollution will increase the economic importance of migratory fish species while also increasing the resiliency of the coastal ecosystem.



*Photo by Skip Pudney*

## Word on the River...



Visit the Cape Fear Benefits website for recent news and additional resources:

[capefearriver.wix.com/communitybenefits](http://capefearriver.wix.com/communitybenefits)

**The Nature Conservancy**  
Protecting nature. Preserving life.™



North Carolina Chapter  
334 Blackwell Street, Suite 300, Durham, NC 27701  
[nature.org/northcarolina](http://nature.org/northcarolina)

© 2014 The Nature Conservancy.

## A Community for Conservation

As a community, we depend on the services provided by water and sewer utilities, farmers, and fishermen. They exist to handle our waste, fill our shelves with food, and provide us with fresh seafood to enjoy.

Together, we can build a stronger, healthier relationship with the Cape Fear River by uniting to form a community dedicated to restoration.

Help us improve the river by showing your support. Share this information with friends and family, communicate your interest in keeping the river clean to elected officials, or volunteer for local conservation organizations. Visit our website to learn more.